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ABSTRACT

Two different approaches to identifying creative potential in writers were compared: (1) A cognitive-factor approach and (2) a personality approach. The objective is to determine whether the cognitive or personality tests are better able to distinguish between more creative and less creative writers. A review of the literature was conducted. Thirty-four graduate student writers were tested. Two professors rated each subject on the creativity he had shown in his writing. Each subject was individually tested with the California Psychological Inventory (CPI) and the Study of Values (Allport), and with a battery of Guilford's divergent production (DP) tests. The following hypotheses were tested: (1) Writers' scores on certain personality scales will be positively correlated, and on certain other scales negatively correlated with professors' creativity ratings; (2) Writers' scores on Guilford's tests of divergent production in the semantic content area will be positively correlated with professors' creativity ratings; and (3) Multiple correlation between personality tests scores and creativity ratings will be greater than that between divergent production scores and creativity ratings. Hypotheses were confirmed at varying degrees. Results of both simple and multiple correlation analyses provide evidence for the view that personality characteristics rather than cognitive abilities hold the key to predicting creative potential in writers. (CK)

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Personality and Cognitive Correlates of Creativity in Writers

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PROBLEM

This study compares two different approaches to identifying creative potential in writers. One, a cognitive-factor approach is based on Guilford's structure of intellect model; the other, a personality approach, stresses the importance of attitudes, interests, and values of the creative individual. A set of tests is associated with each approach. The objective is to determine whether the cognitive or personality tests are better able to distinguish between more creative and less creative writers.

A number of studies have been conducted on the ability of certain cognitive tests, namely Guilford's tests of divergent production, to identify creative individuals, or to discriminate among individuals who have exhibited different degrees of creative performance in a variety of fields. The tests have been used to determine the creative potential of advertising and public relations men (Elliott, 1964), young creative people (Miller, 1962), saleswomen, scientists, Air Force captains, and governmental administrators (Guilford, 1967, pp. 162-166). Generally speaking, the results range from poor to moderate in terms of correlation between test scores and external measures of creative performance.

Similarly, a number of studies have been conducted on the ability of certain personality tests to discriminate among creative individuals. Barron and MacKinnon at the Institute of Personality Assessment and Research at Berkeley have used various personality tests to discover traits of creative architects (MacKinnon, 1964), mathematicians (Barron, 1969), writers (Barron, 1963, 1968, 1969), and scientists (Barron, 1969). They found that certain scales of the California Psychological Inventory,

the Allport-Vernon-Lindzey Study of Values, the Myers-Briggs Type Indicator, and the Minnesota Multiphasic Inventory consistently differentiated between more creative and less creative individuals. Among these tests the California Psychological Inventory and the Study of Values tests have been particularly successful in discriminating among creative people.

The literature includes studies which show the ability of the personality tests but not the Guilford tests to measure creative ability in adult writers. Barron's study of writers (1963, 1968, 1969) suggests that in successful writers certain personality tests scores are positively or negatively correlated with creativity. Evidence from creative writers' personal accounts is consonant with Barron's findings that certain personality traits and values are strongly related to the ability to write creatively.*

The ability of divergent production tests to ascertain creative writing potential has not as yet been determined. On a priori grounds, there seems to be reason to expect that the personality tests will perform better than the divergent production tests in distinguishing between more creative and less creative adult writers. This expectation is reflected in the hypotheses for the empirical part of this study.

METHOD

The subjects were 34 graduate student writers working toward the Master of Fine Arts degree in playwriting or screenwriting. Two professors rated each subject on the creativity he had shown in his writing.

*See Arlene R. Barro's, A Comparison of Two Approaches to Identifying Creativity in Graduate Student Writers. Ph.D. dissertation, University of California at Los Angeles, 1971.

For the purpose of this rating, creativity in writing was defined as a combination of originality and effectiveness. Originality was defined as novelty and uniqueness of idea; effectiveness means effectiveness in carrying out an original idea. Professors were asked to assign numerical ratings representing the creative writing ability of each subject in relation to all students in the professors' experience. The inter-rater reliability of the ratings obtained by this method was 0.52.

Each subject was individually tested with two personality tests, the California Psychological Inventory (CPI) and the Study of Values (Allport), and with a battery of Guilford's divergent production (DP) tests.

The following hypotheses were tested:

1. Writers' scores on certain personality scales will be positively correlated, and on certain other scales negatively correlated, with professors' creativity ratings.

2. Writers' scores on Guilford's tests of divergent production in the semantic content area will be positively correlated with professors' creativity ratings.

3. The multiple correlation between personality tests scores and creativity ratings will be greater than the multiple correlation betwen divergent production tests scores and creativity raings.

Hypotheses I and II were tested by simple correlation and Hypothesis III by multiple correlation-regression analysis.

RESULTS

The hypothesis about correlations between professors' creativity ratings and writers' scores on personality tests (Hypothesis I) were confirmed at the .05 level for six CPI scales and at the .01 level for

one additional scale. As shown in Table 1, these scales and the respective correlation coefficients are Self-acceptance, .33; Self-control, -.48; Good Impression, -.48; Sense of Well-being, -.35; Achievement via Conformance, -.36; Femininity, .31; and Tolerance, -.29; (Correlation coefficients of .306 or greater are significantly different from zero at the .05 level.)* Scores on the remaining scales (Capacity for Status, Social Presence, Socialization, and Achievement via Independence of the CPI and Theoretical, Economic, and Aesthetic values of the Allport) were not significantly correlated with the ratings. No scale operated in the opposite direction to that hypothesized.

Table 1

Correlation of Personality Test Scores
with Creativity Ratings

Test Scale	Hypothesis	Correlation Coefficient	Significance Level
CPI			
Capacity for Status	+	-.18	NS
Social Presence	-	.05	NS
Self-acceptance	+	.33	p<.05
Sense of Well-being	-	-.35	p .05
Socialization	-	-.10	NS
Self-control	-	-.48	p<.01
Tolerance	-	-.29	(p<.10)**
Good Impression	-	-.48	p<.05
Achievement via Conformance	-	-.36	p<.05
Achievement via Independence	+	-.04	NS
Femininity	+	.31	p<.05
Allport			
Theoretical	+	-.01	NS
Economic	-	-.08	NS
Aesthetic	+	-.22	NS

*Correlation coefficients of at least .495, .443, .234, and .306 are significant at the .005, .01, .05 and .10 levels respectively.
**This scale is marginally significant.

The hypothesis that writers' scores on the DP tests will be positively correlated with professors' creativity ratings (Hypothesis II) was confirmed for only one test, Alternate Uses at the .05 level, and for two others, Ideational Fluency and Consequences (scored for originality), at the marginal .10 level (see Table 2). One scale, Possible Jobs, was negatively correlated with the ratings, contrary to the hypothesis. The remaining tests (Associational Fluency, Expressional Fluency, Plot-Titles-originality, Plot Titles-fluency and Consequences-fluency) showed no significant correlations.

Table 2

Correlation of Divergent Production Test Scores with Creativity Ratings

Test	Hypothesis	Correlation Coefficient	Significance Level
Ideational Fluency	+	.25	($p<.10$)*
Associational Fluency	+	.07	NS
Expressional Fluency	+	.10	NS
Alternate Uses	+	.35	$p<.05$
Possible Jobs	+	-.25	NS**
Plot Titles (originality)	+	-.01	NS
Plot Titles (fluency)	+	-.06	NS
Consequences (originality)	+	.28	($p<.10$)*
Consequences (fluency)	+	.04	NS

*This scale is marginally significant.
**This scale shows correlation but in the wrong direction.

The hypothesis that the multiple correlation between personality tests scores and creativity ratings will be greater than the multiple correlation between divergent production test scores and creativity ratings (Hypothesis III) was confirmed. To test this hypothesis, multiple correlation-regression analyses were performed of the relationship between creativity ratings and personality and DP batteries, respectively. An optimal regression equation (highest R^2) for the personality tests involved eight scales: Self-acceptance (Sa), Sense of Well-being (Wb), Socialization (So), Good Impression (Gi), Achievement via Independence (Ai), and Femininity (Fe) of the CPI, and Economic (Ec) and Aesthetic (Ae) values of the Allport. The equation (with t values in parentheses) is:

$$\begin{array}{lllll} CR = .31 + .128Sa - .057Wb - .034So - .066Gi \\ \qquad\quad (3.72) \quad (2.33) \quad (1.28) \quad (3.36) \\ \\ + .096Ai + .084Fe - .021Ec - .041Ae \\ \quad (2.88) \quad (2.97) \quad (1.39) \quad (1.84) \end{array}$$

The multiple correlation coefficient corresponding to this equation was .76, i.e., .58 percent of the variance accounted for. This equation can be considered a prototype of an instrument for distinguishing between more creative and less creative writers.

The best obtainable equation for the DP tests involved two scales, Alternate Uses and Consequences-originality. The multiple correlation coefficient was .39, which means only .15 of the variance accounted for. That equation is clearly not good enough to be of value as an identification instrument.

DISCUSSION

Two possible factors could account for the poor showing of the divergent production tests. One is that the DP tests emphasize speed and quantity rather than quality. Most of the tests are scored according to the total number of responses, regardless of quality, within a time span of two to five minutes. Because of the emphasis on quantity a person with many mundane ideas will receive a higher score than one with a few unusual ideas. Thus, the tests could easily fail to identify creativity as evaluated by the qualitative standards normally used to judge literary products.

A second explanation is that the divergent production tests are suitable for identifying some types of creativity but not others. Their success in discriminating among more creative and less creative advertising men (Elliott, 1964) suggests that the type of creativity associated with this professsion is similar to the type of creative behavior that the DP tests measure.

CONCLUSIONS AND IMPORTANCE OF THE STUDY

Results of both the simple and multiple correlation analyses provide evidence for the view that personality characteristics, rather than cognitive abilities, hold the key to predicting creative potential in writers. The findings of this study are, in general, consonant with Barron's results on writers and with a number of studies on creativity in other professions. Therefore, this investigation can be viewed as one contribution to an integrated base of knowledge on what factors are important in creative behavior. As for practical application, the

multiple regression equation can be considered a precursor of future instruments for selecting promising candidates for writing programs. More generally, the findings indicate those traits that should be fostered for the development of creative writing ability.

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